

This listing of claims will replace all prior versions
and listings of claims in the application:

Listing of Claims:

-29- (Currently amended)

A method for producing an antibody against a
Sarcocystis neurona antigen selected from the group
consisting of a 16 (± 4) kDa antigen and a 30 (± 4) kDa
antigen, as determined by SDS polyacrylamide gel
electrophoresis, comprising:

(a) ~~providing a microorganism containing a DNA
encoding a fusion polypeptide in which a *Sarcocystis*
neurona antigen selected from the group consisting of
the 16 (± 4) kDa antigen and the 30 (± 4) kDa antigen is
fused to a polypeptide which enables isolation of the
fusion polypeptide by affinity chromatography;~~

~~(b) culturing the microorganism in a culture
to produce the fusion polypeptide from the DNA;~~

~~(c) isolating the fusion polypeptide from the
culture by affinity chromatography;~~

~~(d) (b) admixing the fusion polypeptide
isolated by the affinity chromatography antigen with an
adjuvant to produce an admixture;~~

20 ~~(e) (c)~~ immunizing a mammal with the admixture
containing the fusion polypeptide and the adjuvant to
produce antibodies against the 16 kDa antigen or the 30
kDa antigen comprising the fusion polypeptide; and

25 ~~(f) (d)~~ removing serum from the immunized
mammal and isolating from the serum the antibody against
the *Sarcocystis neurona* antigen selected from the group
consisting of the (±4) 16 kDa antigen and the (±4) 30
kDa antigen.

-30-(Currently amended)

A method for producing a monoclonal antibody
against a *Sarcocystis neurona* antigen selected from the
group consisting of a 16 (±4) kDa antigen and a 30 (±4)
kDa antigen, as determined by SDS polyacrylamide gel
5 electrophoresis, comprising:

(a) providing a microorganism containing a DNA
encoding a fusion polypeptide in which a *Sarcocystis*
neurona antigen selected from the group consisting of
the 16 (±4) kDa antigen and the 30 (±4) kDa antigen is
10 fused to a polypeptide which enables isolation of the
fusion polypeptide by affinity chromatography;
~~(b) culturing the microorganism in a culture~~
~~to produce the fusion polypeptide from the DNA;~~

15 ~~_____ (c) isolating the fusion polypeptide from the~~
~~culture by the affinity chromatography;~~

~~_____ (d) (b) admixing the fusion polypeptide~~
~~isolated by the affinity chromatography antigen with an~~
adjuvant to produce an admixture;

20 ~~(e) (c) inoculating mice with the admixture~~
~~containing the fusion polypeptide and the adjuvant to~~
produce antibodies against the 16 kDa antigen or the 30
kDa antigen comprising the fusion polypeptide;

25 ~~(f) (d) removing the spleens from the mice~~
which produce the antibodies against the fusion
~~polypeptide antigen;~~

~~(g) (e) removing spleen cells from the spleens~~
and mixing the spleen cells from the spleens with mouse
myeloma cells to produce a mixture of fused cells
consisting of spleen cells fused to myeloma cells, the
30 spleen cells, and the myeloma cells;

~~(h) (f) selecting the fused cells on cell~~
culture medium in which the fused cells can grow but in
which the spleen cells and the myeloma cells cannot
grow; and

35 ~~(i) (g) screening the fused cells for fused~~
cells which produce the monoclonal antibody against the
Sarcocystis neurona antigen selected from the group

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consisting of the 16 (±4) kDa antigen and the 30 (±4)
kDa antigen to produce the monoclonal antibody.

Claims 32-35 (Cancelled)